

From Trails to Rails

Information for Studying Transportation in New Hampshire

Suggested Activities

1. Discussion:
 - What kinds of transportation did you use to get to school today?
 - How do your parents get to work each day?
 - What are the advantages and disadvantages of each type of transportation?
 - What are some of the transportation problems that exist in your community?
2. Compare road building in the colonial era with the methods used today: tools and technology; impact on people, environment, and the economy.
 - What do students already know about the evolution of transportation in New Hampshire?
 - What means did the Native American Indians use? (Canoe, foot)
 - What impact did the Indians have on the environment? (Very little; they used trees and bar, but not in large quantities.)
 - What kinds of transportation did Europeans introduce? (Large sailing ships, gundalows, wheeled vehicles, such as carts, and horses and oxen.)
 - What impact on the environment did European forms of travel have? (Hooves cut into river banks and fields, creating ruts and muddy areas; large numbers of trees were cut down for bridges, roads, and docks for boats; some cutting away of hill sides and moving of rocks and stones was necessary.)
 - What natural features of the land determined where roads were built? (Roads generally followed lowlands along river valleys — the paths of least resistance.)
 - The cost of maintaining and building roads was a problem long ago, just as it is today. Have students look for news articles related to road construction or maintenance issues.

- Have younger students build road models using two shoeboxes, small twigs or sticks, dirt, and a heavy toy vehicle.
To illustrate two early road-building techniques, create a dirt road in one shoebox and a corduroy road (a dirt road covered with logs laid crosswise) in the other.
 - What kinds of tools and materials are needed to build these roads? (Probably shovels and ox-drawn tools; exact documentation is not available.)
 - Run the toy vehicle over each and compare the kind of travel each road would provide in terms of comfort and maintenance.
 - Invite a present-day road construction engineer to talk with the class about how a road is built today: layers of surfaces used to form the “bed” and final layers; the costs involved; and why it takes so long — residents in the Concord area are very familiar with main road construction and bridge building going on over several years.

- Older students could study a present-day road map of New Hampshire (available from state information centers or local chambers of commerce). Locate the interstate highways. Notice where they are located (river valleys, along the coast) and that few east-west roads exist. Why? (Rivers run north-south.) Discuss and compare the time travel takes and the comfort features (rest stops, smoothness of road surface) offered on interstate and state and county roads.
 - Use a topographical map of New Hampshire that shows physical features and the locations of a few cities. Give each student a copy on which a roadway can be drawn. Suggest that the road be constructed from Concord to a city or town east or west, perhaps Portsmouth or Keene.
You may wish to laminate maps so that they can be reused or changed easily. Let each student choose his or her own route, even if it is merely a straight line.
Discuss the physical barriers that would have to be overcome if the roadway plan was followed.
 - Ask students to identify the tools and equipment needed to build the road. How would they overcome physical or other barriers? What would settlers in the 1700s and early 1800s have used to build roads? Talk about dirt and corduroy roads (bumpy, dusty, muddy, full of pot holes that could trip horses). What would vehicles need to make them more comfortable for travel? (Springs, a way to cushion passengers from the shocks of the rough travel.)
Show item #4, from *New Hampshire Artifact Packet*. What materials and equipment do we use today? How have we made road travel more comfortable, convenient, and safe? What impact do present-day roads have on the environment?

- Why are good roads important? (To get goods to market, to carry supplies, to move people.)
 - How are roads paid for? (In earlier times, residents paid road taxes and tolls; today the federal, state, and local governments use tax money, some from a gasoline tax, for road construction and maintenance; we also pay tolls for use of some roads.)
3. Traveling by coach [Show illustration of a Concord Coach, distribute copies of “Stagecoach Etiquette.”]
 - Road travel was greatly improved by the introduction of the Concord Coach in the mid-1800s. This coach provided more a comfortable ride over longer distances. Students will see an actual coach when they visit the museum.
 - Read “Stagecoach Etiquette” and discuss. What rules do you have to follow when you go on trips with your class? With your family?
 4. Railroads [Distribute the railroad map and graphic of the Amoskeag Manufacturing Company locomotive or make transparencies to show on an overhead projector.]
By the mid-1800s, railroads were the most important means for traveling and shipping goods.
 - What materials would be needed to build railroads? (Iron, machinery, steam engines)
 - What kind of “roadbeds” do railroads need? (Straight or with gradual curves)
 - Where were railroads built? (Many followed the same paths as early trails and roads.)
 - What remote areas of New Hampshire became more accessible? (The White Mountains opened up to tourism.)
 - What advantages and disadvantages did railroads have?

Possible Post-Visit Activities

Note: all the topics below can be expanded to show connections to regional and national history as well as their significance to New Hampshire history.

1. Investigate road building and repair work in your community. Who is in charge? Where does the funding come from? What particular problems are being solved? Invite a member of local government to talk about road building and repair issues.
2. Read one of the bibliographic selections about transportation, such as *Ox Cart Man*.
3. Draw a picture of the form of transportation that most interests you. Which object did you like best at the museum? Why?
4. Create an advertising poster for a form of transportation.

5. Prepare a bulletin board with clippings from local papers about transportation issues. Invite someone from the Chamber of Commerce to talk with students about the importance of transportation in your area.
6. Use the activity “Traveling to New Hampshire” in *New Hampshire Through Many Eyes An Activity Guide*.
7. Visit a local transportation center for trains, buses, airplanes, or lake steamships. Talk with personnel about the issues that they deal with regarding the moving of people and goods.
8. Talk with older adults about travel by car in the earlier part of the twentieth century; compare their experiences on trips by car with yours.
9. Prepare a chart with the pluses and minuses of each type of transportation from Native American Indian trails to shuttles to outer space.
10. Listen to songs by the Shaw Brothers about the Concord Coach and the gundalow. Have students write verses to other tunes they know or write a poem.
11. Explore further the use of pine trees as masts for sailing ships using the *New Hampshire History Curriculum Book I Grades K-6* lesson plan “They Had a Riot” (p. 99). This lesson is also available on our CD-ROM or on our Web site at <http://www.nhhistory.org/edu/support/nhwarindex.htm>. Visit the Wentworth-Coolidge House in Portsmouth to see an old pine mast as well as a recently cut pine tree of the type used for sailboat masts.
12. Duplicate or show the notice advertising the White Mountains. Have students address the following:
 - What is the cost of a roundtrip ticket from Concord to Fabyans and back?
 - What sights will you see on your way?
 - How many hours will it take you to ride from Concord to the Flume?
 - Why does A.C. Hardy need to know the exact number of people for the excursion?
 - What types of transportation will be use on this excursion?
 - Why is the party limited to 75 people?
 - Design a poster or write an advertisement for a trip to see White Mountains in the fall of 1883. Plan your route. Mention how trains provide a good means of transportation as well as what you will see along the way.